

### **REMARKS**

Applicant respectfully requests reconsideration of this application. Claims 1-44 are pending.

Claims 1, 2, 5, 9-11, 13, 14, 16, 20, 21, 24, 29, 30, 32-34, and 37-40 have been amended. No claims have been cancelled or added.

Therefore, claims 1-44 are hereby presented for examination

### **Drawings**

The Examiner has objected to Figures 1, 4, and 6.

In response to the objections, Figure 1 has been amended to include a designation of "Prior Art".

Figures 4 and 6 were originally filed with boxes 402, 410, 602, and 604 in gray. However, in reproduction it appears that these portions of the figures have become very dark, and thus the writing contained in the boxes is not legible in the published drawings. The Figures 4 and 6 have been amended to remove the shading and improve the legibility of the drawings.

Included herewith are Replacements Sheets for Figures 1, 4, and 6, together with marked up copies of the drawings.

### **Claim Objections**

The Examiner has objected to claims 13, 14, 32, and 33 with regard to the use of the phrase "a media device".

The claims have been corrected to refer to "the media device".

### **35 U.S.C. §101**

The Final Office Action rejects claims 20-38 under 35 U.S.C. §101 as being directed toward non-statutory subject matter.

Without any concession regarding the substance of the rejection, the rejected claims are hereby amended to claim a “computer-readable medium” having “computer readable instructions”.

It is submitted that the claims 20-38 describe statutory matter under the provisions of 35 U.S.C. §101.

### **35 U.S.C. §103**

#### **Van Gestel et al. in view of Hakkarainen et al.**

The Final Office Action rejects claims 1-44 under 35 U.S.C. §103(a) as being unpatentable over US Patent Publication No. 2005/0237937 of Van Gestel (hereinafter “*Van Gestel*”) in view of US Patent No. 6,728,241 of Hakkarainen, et al. (hereinafter “*Hakkarainen*”)

Independent claim 1 provides the following claim limitations:

1. A method of end-to-end clock recovery for media streaming, comprising:

inspecting a data packet sent by an application to determine a protocol type of the data packet and a location of a timestamp field in the data packet; and

if the data packet matches a pre-determined protocol type:

generating a new timestamp for the data packet in real-time, the new timestamp being generated at the time of transmission of the data packet;

inserting the new timestamp into the timestamp field of the data packet in place of an original timestamp for the data packet; and transmitting the data packet over a network to a receiver.

The Examiner has cited to *Van Gestel* and *Hakkarainen* to support rejection of these claims. The Applicant will show that these references do not provide the elements of the claims. In particular, claim 1 includes “inspecting a data packet sent by an application to determine a protocol type of the data packet and a location of a timestamp field in the data packet”. If the data packet matches a pre-determined protocol type, then claim 1 provides for generating a new timestamp for the data packet in real-time, and “inserting the new timestamp into the timestamp field of the data packet in place of an original timestamp for the data packet”. It is submitted that, among other differences, the references fail to disclose these elements.

*Van Gestel* regards a jitter compensation method that utilizes a “wall clock” for a transmitter and a receiver. For example, as shown in Figure 1 of *Van Gestel* there is a transmitter wall clock 5 used in providing transmission time stamping 7 and a receiver wall clock 9 used in providing reception time stamping 8. A calculated time delay is used in a jitter compensating means 11 for IP packets. (*Van Gestel*, p. 2, ¶0031)

However, it is submitted that *Van Gestel* does not provide for inspecting a data packet to determine a location of a timestamp in the data packet, and does not provide for inserting the time stamp into the timestamp field in place of the original timestamp. Instead the reference provides for insertion of an additional timestamp for an

encapsulating packet, without regard to any existing timestamp in the transmitted data packet.

Figure 1 of *Van Gestel* illustrates this process. As shown, an MPEG data source 6 for a data stream of packets utilizes a system time claim (STC). The MPEG transport stream then is prepared for transport by encapsulating multiple TS (Transport Stream) packets into an IP packet. (*Van Gestel*, p. 2, ¶0028) As indicated, there often is a 4 byte application time stamp added to a TS packet. (*Van Gestel*, p. 2, ¶0030)

However, *Van Gestel* does not provide for finding these TS packet time stamps or for replacing them – rather, it provides for generating a time stamp for the IP packet, which encapsulates multiple TS packets. “Here the IP packet may be provided with a transmission time stamp from transmission time stamping means 7, coupled to the transmitter walk clock 5. The actual transmission time stamp means may for example represent the moment whereon the first byte of the IP packet is delivered to the transmitter.” (*Van Gestel*, p. 2, ¶0031, lines 1-6) Thus, what is happening is not a search for a timestamp field for the packets having time stamps, or for the replacement of such timestamps, but instead an addition of a separate timestamp for the encapsulating IP packet.

This can be seen further in the structure of the system illustrated in Figure 1. As previously stated there is a jitter compensating means 11 for the IP packets. However there may also be a transport stream jitter compensating means 12 to “compensate for jitter on TS packets present within the IP packets.” (*Van Gestel*, p. 3, ¶0035, lines 1-4)

Thus, the *Van Gestel* reference does not provide for inspecting a data packet to determine a location of a timestamp in the data packet, and does not provide for inserting the time stamp into the timestamp field in place of the original timestamp.

The Office Action indicates that *Van Gestel* fails to teach inspecting a data packet sent by an application to determine a protocol type of the data packet and to match the data packet to a pre-determined protocol type, and cites to *Hakkarainen* for these claims elements. It is first noted that, even if it is assumed that is accurate and that that the references have been properly combined, this would be insufficient for rejection of the claims because *Hakkarainen* does not teach or reasonably suggest the elements shown to be missing from *Van Gestel* above. *Hakkarainen* regards Boolean protocol filtering of a broadcast data stream, and does not appear to contain any discussion that is relevant to time stamp generation.

Further, it is submitted that there is no true motivation for combining the references. The Office Action states that the motivation for combining *Van Gestel* and *Hakkarainen* is “to ease the load on the processor because it does not have to process unnecessary packets”. This claimed motivation does not actually make any sense with regard to *Van Gestel*. What the *Van Gestel* system is doing is providing time stamps for IP packets, and this is without regard to the packets that are encapsulated within each IP packet. Examining the packets for a protocol does not appear to add anything to the *Van Gestel* system, and the motivation to combine suggested by the Office Action is not a true motivation. The IP packets all appear to require a timestamp, and matching the protocol

of the packets within each IP packet would not appear to be affect the process in *Van Gestel*

**Other Claims** – Thus, claim 1 patentable over the cited references. It is submitted that the arguments presented above with regard to claim 1 apply by analogy to the related claim elements of **independent claims 10, 20, 29, and 39**, and thus such claims are also allowable.

The remaining claims (**claims 2-9, 11-19, 21-28, 30-38, and 40-44**) are dependent claims, and, while having other differences with the cited references, are allowable as being dependent on the allowable base claims.

#### **CONCLUSION**

Applicant respectfully submits that the rejections have been overcome by the amendment and remark, and that the claims as amended are now in condition for allowance. Accordingly, Applicant respectfully requests the rejections be withdrawn and the claims as amended be allowed.

### **Invitation for a Telephone Interview**

The Examiner is requested to call the undersigned at (503) 439-8778 if there remains any issue with allowance of the case.

### **Request for an Extension of Time if Needed**

The Applicant respectfully petitions for an extension of time to respond to the outstanding Office Action pursuant to 37 C.F.R. § 1.136(a) should one be required. Please charge the fee for any extension of time to our Deposit Account No. 02-2666.

### **Charge our Deposit Account**

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,

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